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EXAMINER	
CHOI, PETER H	

ART UNIT	PAPER NUMBER
3623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/774,538	ABRAHAMS ET AL.	
	Examiner	Art Unit	
	Peter Choi	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a **FINAL** office action upon examination of application number 09/774,538. Claims 1-20 are pending in the application and have been examined on the merits discussed below.

Response to Amendment

2. Claims 1, 4, and 14 are amended in response to amendments submitted by Applicant on August 14, 2006. The previous rejection of claims 4 and 14 under 35 USC § 112, second paragraph is withdrawn in view of claim amendments.

Request for Information

3. Applicant's response to the Request for Information made April 18, 2006 is noted and has been entered.

Response to Arguments

4. Applicant's arguments filed August 14, 2006 have been fully considered but they are not persuasive.

Applicant argues that Mulholland does not teach a risk processor that updates a body of risk information including quantitative risk information based on risk information in a particular project.

The Examiner respectfully disagrees. Mulholland discloses the use of a Macintosh PC and commercially available application programs called HyperCard and Excel. The use of said computer software programs inherently require the use of a computer processor (i.e., the Macintosh PC) for execution; thus, the use of HyperCard and Excel implicitly provides the use of the processor of the hosting computer to meet this limitation. Furthermore, the computer processor (Macintosh PC) used for execution of HyperCard and Excel act as a "risk processor", since said processor is used to process risk data. Page 12, Column 2, lines 57-58 disclose that: "The EXCEL spreadsheet model also provides the means for sensitivity analyses for different outcomes", the sensitivity analyses being performed by varying one certain element at a time, thereby updating the body of risk information for a particular project using a risk processor.

Applicant argues that Mulholland teaches making use of past experience for risk identification, but not to update a body of risk information including quantitative risk information.

The Examiner respectfully disagrees. Mulholland teaches that the Excel spreadsheet requires as inputs the optimistic, likely and pessimistic activity times, the relative importance of risks, and calculates the expected performance time and the variance in the performance distribution, as well as other information and statistical data [page 12, Column 2, lines 1-6]. As such, the calculated expected performance time and

variance in performance time distribution changes as the Excel spreadsheet is updated (via inputting the optimistic, likely, and pessimistic activity times and relative importance of risks).

Applicant argues that Mulholland teaches a knowledge base for risk identification, but does not teach a knowledge base for risk measurement.

The Examiner respectfully disagrees. From page 10, Column 2, lines 4-12: "Classic risk analysis is undertaken in the following three iterative phases: (1) Risk identification; (2) risk measurement; and (3) risk management (Diekmann et al. 1988). The subject of this paper, risk assessment, is involved with the first two phases of risk analysis." Thus, Mulholland is directed towards risk identification ***and*** risk measurement.

Applicant argues that it is not the body of risk information *for a particular project* that is being updated, but rather the body of risk information *representing many different projects*.

The Examiner respectfully disagrees. The schedule risk system of Mulholland uses a HyperCard risk factor identification module, which contains information acquired from many experts and previous construction projects, which further uses statistical techniques embedded in an Excel spreadsheet [page 12, Column 1, lines 37-40]. Mulholland also teaches that "A Hypertext system is used to store and give access to

information concerning previously experienced schedule risks" [page 12, Column 12, lines 9-10]. Thus, Mulholland uses risk information representing a particular project in view of risks previously experienced in other projects.

5. The following arguments made by the Applicant have been considered but are moot in view of the new ground(s) of rejection, as seen in the updated rejection of claims 1-20 below:

- Mulholland does not teach the two data stores, nor the updating of one based on values in the other. (The Examiner notes that claims 1 and 11 only recite a single data store)
- Mulholland does not teach or suggest the updating of one data store based on another, or the updating of generic risk records based on a profile risk record.
- Mulholland does not teach an averaging process as part of the updating process.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Under the statutory requirement of 35 U.S.C. § 101, a claimed invention must produce a useful, concrete, and tangible result. For a claim to be useful, it must yield a result that is specific, substantial, and credible (MPEP § 2107). A concrete result is one

that is substantially repeatable, i.e., it produces substantially the same result over and over again (*In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000)*). In order to be tangible, a claimed invention must set forth a practical application that generates a real-world result, i.e., the claim must be more than a mere abstraction (*Benson, 409 U.S. at 71-72, 175 USPQ at 676-77*). (Please refer to the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" for further explanation of the statutory requirement of 35 U.S.C. § 101.)

Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding a useful result, the claimed invention must yield a result that is specific, substantial, and credible. The recited steps to maintain/update generic risk records in claims 1 and 11 are not deemed to be specific, substantial, and credible because the claimed invention does not have a specific or substantial result, nor is there a positive citation of use for the result. Risk records are maintained and updated, but this result is intangible and lacks usefulness.

Regarding a tangible result, the claimed invention must set forth a practical application that generates a real-world result, i.e., the claim must be more than a mere abstraction. For example, maintaining and updating generic risk records *per se* is abstract because there is no real-world application of the risk records. The claimed

invention merely collects a plurality of data, but does not positively recite an application or analysis of said collected data. Data analysis is a contributing factor to tangibility and usefulness, but only when said data analysis actively changes the use of the risk records.

In another example, the claimed invention directed towards the steps of collecting and updating risk records would be deemed non-statutory under 35 U.S.C. § 101 for at least failing to produce a tangible result. These steps could be limited to the mind of a human user. Until such steps are used to manifest some effect in the real-world, they constitute a mere abstract idea.

If, however, the risk records were somehow used in a real-world application such as using the updated risk records to manage projects, or generating new generic risk templates (used to provide risk analysis of future projects), then the claimed invention would yield a real-world, i.e., tangible, result.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In independent claims 1 and 11, lines 6-9 cite "and at least some of which have been determined...". It is unclear what has been determined. The "some of which" language does not discern what is the determined value amongst the generic risk record, a plurality of fields, and the subjective and numerical values of risk. What is the "some of which" referring to? The generic risk record? The plurality of fields? The subjective risk values? The quantitative risk values?

Lines 7-8 cite "an average of corresponding subjective or quantitative risk values...". The claim language implies a one-to-one relationship between risk values in completed projects and the entity from the "some of which" limitation.

For purposes of an art rejection, the Examiner has interpreted lines 6-9 to be a reference to quantitative risk values that some of the ***plurality of fields*** have been determined as an average of ***the subjective or quantitative risk values of corresponding*** completed projects or processes. Clarification and correction are required.

Claims 2-10 and 12-20, respectively, are dependent on claims 1 and 11; therefore, the same rejection applies.

Claim Rejections - 35 USC § 103

9. Claims 1-2, 4, 9-12, 14 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulholland (article, "Risk Assessment in Construction Schedules" by B. Mulholland and J. Christian).

As per claim 1, Mulholland teaches a system comprising:

(a) a knowledge base **(HyperCard knowledge base)**, for maintaining a generic risk record **{EXCEL spreadsheets used for modeling schedule risk}** including a plurality of fields **{columns 1-9 of Table 4, columns 1-10 of Table 5}**, at least some of which have subjective **(Engineering risks, Importance, Confidence, Relative Importance, columns 1-3 and 9 of Table 4)** or quantitative values **{Activity Time Estimates, columns 4-9 of Table 4; Probability of project duration, columns 2-10 of Table 5}** for risk **{Hypertext system is composed of schedule risk information (facts, data, and heuristics)}** with the subjective values synchronized to numerical values **{subjective labels/values Engineering risks, Importance, Confidence, and Relative Importance are associated with a range of numerical values, as seen in Table 4 }** [Figure 5, Tables 4-5, page 12, Column 2, lines 11-14];

(b) a data store of profiles, for maintaining a profile risk record associated with a particular profile for a particular project or process **{a particular construction project; EXCEL spreadsheets used for modeling schedule risk for individual projects}**, the profile risk record for use in providing a risk assessment in the associated profile for the particular project or process **{Conceptual project schedule is subjected to Project Team's Job Knowledge Experience, which is then used in risk identification and risk measurement; estimate of project duration}** [Figure 2, Tables 4-5, page 11, Column 1, lines 8-12]; and

(c) a risk processor **{the computer hosting the HyperCard system and EXCEL spreadsheets which are used in performing the risk assessment}**, for updating at least one of the subjective or quantitative values of the generic risk record based on a corresponding field value in the profile risk record in the data store of profiles **(an estimate of the overall project duration must be produced based on uncertain data; modeling the effects on uncertainty on the project schedule by use of three recursive steps, (1) Identify schedule risks, (2) evaluate their effects and the probability of occurrence, and (3) within the proposed project schedule framework, model the risk and their effects to obtain the project's schedule risk profile; The HyperCard system can provide the basis for risk identification by presenting most known schedule risks. The database provided by the HyperCard system should act as a stimulus for follow-up brainstorming sessions with the key members of the project team. The output from the review of the HyperCard database and the brainstorming process should produce a comprehensive list of**

potential schedule risks, which then can be rewritten and reordered into the relevant risks for each dimension of schedule uncertainty) [page 11, Column 1, lines 10-17, 32-40];

whereby at least some of the subjective or quantitative values of the generic risk record are refined over time based on values of the corresponding fields of the profile risk record for the particular project or process **(recursive refinement of probabilistic schedules based on identified and measured risks; the output from the review of the HyperCard database and the brainstorming process should produce a comprehensive list of potential schedule risks, which then can be rewritten and reordered into the relevant risks for each dimension of schedule uncertainty; the EXCEL spreadsheet model provides means for performing sensitivity analyses by varying one uncertain element at a time and examining the effect of the change in that element on the total project performance time; transfer project experience and institutional knowledge to new projects)** [Figure 2, page 11, column 1, lines 36-40, page 12, column 2, last paragraph].

Mulholland does not explicitly disclose that the profile risk record includes the same plurality of fields as the generic risk record. However, the HyperCard database acts as a generic template for risk records, which are customized for each project. Combined with a brainstorming session with key members of the project team, a comprehensive list of potential (relevant) schedule risks, which are rewritten and reordered into a database of engineering design risks for each dimension of schedule

uncertainty. Furthermore, the concept of inheritance is old and well known in the field of computer science. Specifically, in object oriented programming, inheritance is where new (derived) classes are formed based on (base) classes that have already been defined; the derived classes inherit attributes and behavior of the base classes. The base classes act as templates, and derived classes are specific instances of said base classes, similar to the claimed generic risk profile (generic template) and profile risk records (specific instance of the generic template). Therefore, Mulholland's use of the HyperCard databases as a foundation prior to customization is considered by the Examiner to be an instance of inheritance, where the specific instance (profile risk record) is created of the generic template (generic template), sharing the same fields, but differing in value; therefore, the limitation of the claim is met.

Mulholland does not explicitly disclose the step of averaging corresponding subjective or quantitative risk values in completed projects or processes.

Mulholland also does not explicitly disclose the step of averaging into the at least one value of the generic risk record the corresponding field value in the profile risk record.

However, Official Notice is also taken that it is old and well known in the art to update/modify data based on newly gathered inputs. For example, recalculating an average (i.e., arithmetic mean) of data values after receiving additional data. Official

Notice is also taken that it is old and well known in the art to adopt an average value as a template value (i.e., baseline) to estimate the tendency of a population value. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Mulholland to include the steps of averaging corresponding values in completed projects or processes and averaging into the at least one value of the generic risk record the corresponding field value in the profile risk record, because doing so would enable Mulholland to analyze, synthesize and sufficiently correct past experiences to prevent mistakes on past projects from being repeated, to document and transfer project experience and institutional knowledge to new projects, and further to provide support for early planning decisions that can lead to choices giving more valuable prospects, and allowing parties of interest to act quickly and decisively when a risk event occurs, which are goals of Mulholland [page 8, Column 2, lines 43-46, page 14, Column 1, lines 1-5, Column 2, liens 10-13].

As per claim 2, Mulholland teaches the system of claim 1, wherein some of the subjective or quantitative values are values of measuring fields input by the user **(sensitivity analyses is performed by varying one uncertain element at a time and examining the effect of the change in that element on the total project performance time)**, and others are values of calculated fields calculated by the system **(variance of estimated activity time, column 8 of Table 4)**, and the system allows different modes of analysis **(reexamination of the assumptions and identification of factors that drive schedule performances; recognition of hidden assumptions)** in

which the fields that are the measuring fields differ [Table 4, page 12, column 2, last paragraph, page 13, column 2, lines 3-8].

As per claim 4, Mulholland teaches the system of claim 1, wherein the system can be used in different modes of use **(identifying schedule risks, evaluating the effects and probability of occurrence of schedule risks, modeling the risks and their effects within the proposed project schedule framework to obtain the project's schedule risk profile)**, and further wherein only some of the fields of the generic risk record or the profile risk record are required to be used in a risk management analysis, and which of the fields are required depends on the mode of use **(the uncertainty in each phase of the project life-cycle is driven by its own unique set of variables and is differentiated from the other phases by work content)** [page 9, column 1, lines 47-51, page 11, column 1, lines 12-17].

As per claim 9, Mulholland teaches the system of claim 1, further comprising a scripting facility for enabling a user to create a script directing how a risk management process is to be performed, the script indicating steps that can be used in performing risk analysis in any profile **(the Hypertext system component of the HyperCard information system is composed of schedule risk information linked together using hypertext tools; the system's links provide the means to access the documents within the database. The links, which guide the user through the database, can be divided into two types: organizational and navigational.**

Organizational links connect the structure of the system. These links appear as buttons along the bottom of every screen. Clicking the buttons executes the links and thus allows the user to move between the various documents in the database. In the database the basic elements of information are contained in objects. Once an object has been defined, it is possible to define navigational links that lead to other documents in the database; following an interactive session with the HyperCard information system, the effects of the risks identified in the four dimensions of schedule uncertainty can be evaluated) [page 12, column 2, lines 9-10, 29-45].

As per claim 10, Mulholland teaches the system of claim 1, further wherein the risk processor also uses the generic risk record to provide initial values for the profile risk record, whereby the profile risk record has initial values based on experience gained over time **(the HyperCard risk factor identification module contains information acquired from many experts and previous construction projects; document and transfer project experience and institutional knowledge to new projects {the risk values experienced over time are provided as "initial" values to new projects})** [page 12, column 1, lines 37-39, page 14, column 2, lines 10-13].

Claims 11-12, 14, and 19-20 recite limitations already addressed by the rejection of claims 1-2, 4, and 9-10, made above; therefore, the same rejections apply.

10. Claims 3, 5-8, 13 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulholland as applied to claims 1 and 11 above, and further in view of Summerell et al (U.S Patent #5,937,387).

As per claim 3, Mulholland does not explicitly teach the system of claim 2, wherein the modes of analysis include:

(a) a residual assessment mode, in which a user selects inherent values of likelihood and consequence for a risk, and a value, for each control for the risk, for effectiveness in either preventing the risk or reducing the consequence of the risk, and the system then calculates residual levels of likelihood, consequence and risk rating for the risk;

(b) an inherent assessment mode, in which a user selects residual values of likelihood and consequence for a risk, and a value, for each control for the risk, for effectiveness in either preventing the risk or in reducing the consequence of the risk, and the system then calculates the inherent levels of likelihood, consequence and risk rating for the risk; and

(c) a controls self-assessment mode, in which a user selects inherent values of likelihood and consequence for a risk, as well as residual values of likelihood and consequence for the risk, and the system then calculates the effectiveness of predetermined controls needed to either prevent the risk or to reduce the consequence of the risk.

However, Summerell et al. teaches a health profile questionnaire used to assess a user's relative wellness for a set of relative risk factors. Each factor is associated with a series of relative probabilities. The relative risk factors can relate to voluntary life style choices, habit, environment, disease transitions or genetic predispositions such as accident prone behaviors, age of death of parents, air pollution, alcohol, allergies, angioplasty, aspirin, asthma, blood pressure, body mass index, breakfast, coronary artery bypass graph, calcium, cigarette smoking, diabetes, dietary cholesterol, dietary fiber, driving while intoxicated, eating between meals, education level of spouse, education status, employment status, estrogen, forced expiratory volume in one second, firearms, first myocardial infarction, folate, functional status, garlic powder, genetic makeup, genetic risks, green tea, HDL cholesterol, heart rate, helmet use, immunizations, income, iron, job strain, liver disease, low back pain, lycopene, major life events, marital status, meat eating, coronary artery disease, medication compliance, medication use, non-steroidal anti-inflammatory drugs, occupation, parent's divorce, passive smoking exposure, pets, physical activities, renal disease, safety belt use, self reported health status, sleep, social contacts, stamina, strength, stress, troke, suicide attempt, total cholesterol, traffic tickets, transfusions, vitamin A, B vitamins, vitamin C, vitamin D, vitamin E, white blood cell count, weight changes, zinc, and weight cycling, among others [Column 9, lines 26-61].

Summerell et al. teaches relative risk **(value of likelihood and consequence for a risk)**, the ratio of the occurrence of death in people with an attribute to the

incidence in people without an attribute. The higher the deviation of the relative risk from the baseline, which is assumed to be 1, the more the attribute is a cause/marker of mortality. Conversely, the lower the deviation, the less the attribute is a cause/market of mortality. Attributes with relative risks above the baseline are considered causes/markers of mortality **(an inherent value of likelihood)**. Attributes with relative risks less than 1 are treated as beneficial [Column 9, line 62 – Column 10, line 16].

The Summerell et al. system presents the user with a list of planner options that have been chosen by the system based upon input by the user. Using the list, the user can select one or more of the options **(the user selects from a plurality of options, each having values of likelihood and consequence)** to form a wellness plan. The user can then determine the physiological effect of implementing the chosen wellness plan. This process can be repeated such that the user can evaluate the effects of various wellness plans, and then decide upon their preferred plan. This allows a user to evaluate the benefits of varying combinations of planner options [Column 17, lines 15-24]. Figures 18-29 of Summerell et al. provide examples of the wellness planner. Figures 18 and 19 show examples of physiological age planning windows, without selected plan items. The user can select from a list of recommendations to reduce physiological age, which is displayed as "Maximum Age Reduction (years)" **(indicating the calculated effectiveness of the control in preventing or reducing the consequence of risk)**. Figures 20 and 21 show examples of physiological age planning

windows, with selected plan items. The physiological age is calculated after implementing recommendations **(residual likelihood)** is displayed.

Summerell et al. is directed towards helping users consider and quantify their relative wellness (based on a series of wellness factors) and further evaluate the potential effect on the user's physiological age and wellness implementing a plurality of options/recommendations. Similarly, Mulholland is directed towards considering and quantifying risk, and enabling a sensitivity analysis by varying one uncertain element at a time and examining the effect of the change in that element on the total risk value. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Mulholland to include the steps of user-interactive risk assessment and evaluation, as disclosed by Summerell et al., because the resulting combination would enable an interactive sensitivity analysis means for evaluating the consequences of voluntary actions on overall risk, a tool that provides the user with a means of measuring progress towards reducing risk, thereby providing support for early planning decisions that can lead to choices giving more valuable prospects, and allowing parties of interest to act quickly and decisively when a risk event occurs, which is a goal of Mulholland [page 14, Column 1, lines 1-5].

As per claim 5, Mulholland teaches the system of claim 4, wherein both the generic risk record and the profile risk record each comprise:

(a) a risk component, for indicating a risk **(identify schedule risks; produce a comprehensive list of potential schedule risks)**, for indicating an inherent risk rating, and also for indicating a residual risk rating **(Importance, column 3 of Table 3)** [page 11, column 1, lines 14-15, 36-39];

(b) a cause component, for indicating the cause of the risk **(Risk Source, column 2 of Table 3)** [Table 3]; and

(c) a consequence component, for indicating a particular consequence of the risk **(evaluate the effects and probability of occurrence of schedule risks)** and an inherent and a residual cost of the particular consequence **(variance of the performance time distribution of a project)** [page 11, column 1, lines 14-15, Tables 4-5, column 2, lines 2-10];

Mulholland does not explicitly teach (d) a control component, for indicating a control, for indicating whether the control is corrective or preventative, and for indicating the effectiveness of the control.

The Summerell et al. system presents the user with a list of planner options **(control component for indicating a control)** that have been chosen by the system based upon input by the user. Using the list, the user can select one or more of the options to form a wellness plan. The user can then determine the physiological effect of implementing the chosen wellness plan **(indicating the effectiveness of the control)**. This process can be repeated such that the user can evaluate the effects of various

wellness plans, and then decide upon their preferred plan. This allows a user to evaluate the benefits of varying combinations of planner options [Column 17, lines 15-24]. Figures 18-29 of Summerell et al. provide examples of the wellness planner. The user can select from a list of recommendations **(indicating controls)** to reduce physiological age, which is displayed as "Maximum Age Reduction (years)" **(indicating the effectiveness of the control)**. The recommendations comprise a plurality of corrective and preventative measures.

Summerell et al. is directed towards helping users consider and quantify their relative wellness (based on a series of wellness factors) and further evaluate the potential effect on the user's physiological age and wellness implementing a plurality of options/recommendations. Similarly, Mulholland is directed towards considering and quantifying risk, and enabling a sensitivity analysis by varying one uncertain element at a time and examining the effect of the change in that element on the total risk value. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Mulholland to include the steps of user-interactive risk assessment and evaluation, as disclosed by Summerell et al., because the resulting combination would enable an interactive sensitivity analysis means for evaluating the consequences of voluntary actions on overall risk, a tool that provides the user with a means of measuring progress towards reducing risk, thereby forcing a reexamination of assumed risk factors, and further providing support for early planning decisions that can lead to choices giving more valuable prospects, and allowing parties of interest to act

quickly and decisively when a risk event occurs, which is a goal of Mulholland [page 13, page 14, Column 1, lines 1-5].

As per claim 6, Mulholland does not explicitly teach the system of claim 5, wherein in one mode of use, an inherent risk impact cost is aggregated over the inherent cost of each consequence of the risk.

Summerell et al. teaches a composite survival probability **(inherent risk impact cost is aggregated over the inherent cost of each consequence)**, which is the product of all survival probabilities and an adjustment for covariance among the factors, that is calculated and used to adjust the average survival probability rate. The result is a survival probability rate adjusted for the user's level of wellness.

Summerell et al. is directed towards helping users consider and quantify their relative wellness (based on a series of wellness factors) and further evaluate the potential effect on the user's physiological age and wellness implementing a plurality of options/recommendations. Similarly, Mulholland is directed towards considering and quantifying risk, and enabling a sensitivity analysis by varying one uncertain element at a time and examining the effect of the change in that element on the total risk value. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Mulholland to include the steps of user-interactive risk assessment and evaluation, as disclosed by Summerell et al., because the resulting

combination would enable an interactive sensitivity analysis means for evaluating the consequences of voluntary actions on overall risk, a tool that provides the user with a means of measuring progress towards reducing risk, thereby providing support for early planning decisions that can lead to choices giving more valuable prospects, and allowing parties of interest to act quickly and decisively when a risk event occurs, which is a goal of Mulholland [page 14, Column 1, lines 1-5].

As per claim 7, Mulholland does not explicitly teach the system of claim 5, wherein in one mode of use, the residual likelihood is an aggregate calculation based on the effectiveness of each preventative control acting on an inherent likelihood.

Figures 18-29 of Summerell et al. provide examples of the wellness planner. Figures 18 and 19 show examples of physiological age planning windows, without selected plan items. Figures 20 and 21 show examples of physiological age planning windows, with selected plan items. The physiological age is calculated after implementing recommendations **(residual likelihood is an aggregate calculation based on the effectiveness of each preventative control acting on an inherent likelihood)** is displayed.

Summerell et al. is directed towards helping users consider and quantify their relative wellness (based on a series of wellness factors) and further evaluate the potential effect on the user's physiological age and wellness implementing a plurality of

options/recommendations. Similarly, Mulholland is directed towards considering and quantifying risk, and enabling a sensitivity analysis by varying one uncertain element at a time and examining the effect of the change in that element on the total risk value. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Mulholland to include the steps of user-interactive risk assessment and evaluation, as disclosed by Summerell et al., because the resulting combination would enable an interactive sensitivity analysis means for evaluating the consequences of voluntary actions on overall risk, a tool that provides the user with a means of measuring progress towards reducing risk, thereby providing support for early planning decisions that can lead to choices giving more valuable prospects, and allowing parties of interest to act quickly and decisively when a risk event occurs, which is a goal of Mulholland [page 14, Column 1, lines 1-5].

As per claim 8, Mulholland does not explicitly teach the system of claim 5, wherein in one mode of use, a residual risk impact cost is aggregated over the residual cost of each consequence of the risk.

Figures 18-29 of Summerell et al. provide examples of the wellness planner. Figures 18 and 19 show examples of physiological age planning windows, without selected plan items. Figures 20 and 21 show examples of physiological age planning windows, with selected plan items. The physiological age is calculated after implementing recommendations **(residual likelihood is an aggregate calculation**

based on the effectiveness of each preventative control acting on an inherent likelihood) is displayed.

Summerell et al. is directed towards helping users consider and quantify their relative wellness (based on a series of wellness factors) and further evaluate the potential effect on the user's physiological age and wellness implementing a plurality of options/recommendations. Similarly, Mulholland is directed towards considering and quantifying risk, and enabling a sensitivity analysis by varying one uncertain element at a time and examining the effect of the change in that element on the total risk value. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Mulholland to include the steps of user-interactive risk assessment and evaluation, as disclosed by Summerell et al., because the resulting combination would enable an interactive sensitivity analysis means for evaluating the consequences of voluntary actions on overall risk, a tool that provides the user with a means of measuring progress towards reducing risk, thereby providing support for early planning decisions that can lead to choices giving more valuable prospects, and allowing parties of interest to act quickly and decisively when a risk event occurs, which is a goal of Mulholland [page 14, Column 1, lines 1-5].

Claims 13 and 15-18 recite limitations already addressed by the rejection of claims 3 and 5-8, made above; therefore, the same rejections apply.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Choi whose telephone number is (571) 272 6971. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PC

October 30, 2006

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